WHAT IS CLAIMED IS:

1. A polarized light reflecting element comprising:

at least one polymerized liquid crystal layer, cholesteric, chiral-nematic, or chiral, having a helical liquid crystal molecule array and a helical axis extending substantially in the normal direction,

the in-plane mean value $\alpha$ of the respective helix angles of the liquid crystal molecules being given by

$$n\pi - 0.05\pi \leqq \alpha \leqq n\pi + 0.05\pi \quad (n = 1, 2, 3, \ldots).$$

2. A polarized light reflecting element according to claim 1, wherein a plurality of said liquid crystal layers with different helix pitches are stacked so that the liquid crystal molecules are continuously oriented on the interfaces between the liquid crystal layers and that one smooth helical structure is formed as a whole.

3. A polarized light reflecting element according to claim 2, wherein the mean value $\alpha$ of the respective helix angles of the liquid crystal molecules of each said liquid crystal layer is given by

$$n\pi - 0.05\pi \leqq \alpha \leqq n\pi + 0.05\pi \quad (n = 1, 2, 3, \ldots).$$

4. A polarized light reflecting element according to claim 1, wherein each of said liquid crystal layers has a helical liquid crystal molecule array and a thickness such that the layer reflects some of specific circularly polarized light components of incident light and transmits the remainder of the specific circularly

polarized light components not reflected and almost all other light components other than the specific circularly polarized light components.

5. A polarized light reflecting element according to claim 4, wherein the ratio between the reflected and transmitted ones of the specific circularly polarized light components ranges from 5:5 to 9:1.

6. A half-transmission-type liquid crystal display element comprising:

a first polarization plate;

a liquid crystal cell;

a second polarization plate; and

the polarized light reflecting element according to claim 1 located between the first and second polarization plates.

7. A half-transmission-type liquid crystal display element according to claim 6, wherein the first and second polarization plates have reverse circular polarization characteristics, and the polarized light reflecting element and the first and second polarization plates are located in a manner such that the transmittance of the polarized light reflecting element is at a minimum when the respective optical axes of the first and second polarization plates are rotated individually.

8. A liquid crystal display element comprising:

a first polarization plate;

a liquid crystal cell;

a second polarization plate;

a backlight source;

the polarized light reflecting element according to claim 1 located between the second polarization plate and the backlight source; and

a $\lambda/4$-wavelength plate located between the second polarization plate and the polarized light reflecting element.

9. A method of manufacturing a polarized light reflecting element, comprising:

forming an oriented film on a substrate;

orienting the oriented film so that liquid crystal molecules are controlled in one in-plane direction;

forming a liquid crystal layer having a helical structure on the oriented film; and

orienting and solidifying the liquid crystal molecules in the top portion of the liquid crystal layer in substantially the same direction as the direction of orientation of the oriented film.

10. A method of manufacturing a polarized light reflecting element, comprising:

forming an oriented film on a substrate;

orienting the oriented film so that liquid crystal molecules are controlled in one in-plane direction;

forming a first liquid crystal layer having a helical structure on the oriented film;

orienting and solidifying the top portion of the first liquid crystal layer in substantially the same direction as the direction of orientation of the oriented film;

forming a second liquid crystal layer having a helical structure on the first liquid crystal layer; and

orienting and solidifying the top portion of the second liquid crystal layer in substantially the same direction as the direction of orientation of the oriented film.

11. A method of manufacturing a polarized light reflecting element, comprising:

forming a first oriented film on a substrate;

orienting the first oriented film so that liquid crystal molecules are controlled in one in-plane direction;

forming a first liquid crystal layer having a helical structure on the first oriented film;

orienting and solidifying the top portion of the first liquid crystal layer in substantially the same direction as the direction of orientation of the first oriented film;

forming a second oriented film on the first liquid crystal layer;

orienting the second oriented film in substantially the same direction as the direction of

orientation of the first oriented film;

forming a second liquid crystal layer on the second oriented film; and

orienting and solidifying the top portion of the second liquid crystal layer in substantially the same direction as the direction of orientation of the first oriented film.

12. A method of manufacturing a polarized light reflecting element according to claim 11, wherein the first and second oriented films and the second liquid crystal layer are formed so that the respective refractive indexes thereof account for 95% to 1005% of the refractive index of the first liquid crystal layer.